DOCUMENT RESUME

ED 434 519 FL 025 996

AUTHOR Dorr, Roberta E.
TITLE The Effects of Task and Language Vernacular on Rhyming in Kindergarten, First, and Second Graders.
PUB DATE 1999-04-21
NOTE 16p.; Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Canada, Quebec, April 19-23, 1999).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Black Dialects; Blacks; Class Activities; English; Family Environment; *Language Processing; Language Research; Oral Language; Phoneme Grapheme Correspondence; *Phonology; Primary Education; *Pronunciation; *Reading Instruction; *Rhyme; Speech Skills; Standard Spoken Usage; Urban Schools; Word Recognition
IDENTIFIERS *African Americans

ABSTRACT

A study investigated the degree to which the pronunciation of English words in the child's home environment affected the acquisition or discrimination of phonological and orthographic correspondences of standard written English. Subjects were low-socioeconomic-status, inner-city African American kindergarten, first-, and second-grade students, who were given individually administered, standard phonological awareness tasks in class, including rhyming tasks. It was predicted that the children would perform better on recognition than production tasks, would perform better on recognition tasks where the reduction rule did not apply, and would select a response consistent with their vernacular, and that rhyming tasks would be the best predictors of future performance on standard measures. Results suggest that two factors affect the amount of processing beginning readers must expend to be successful: the cognitive demands of the tasks used to measure phonological awareness, and the knowledge representation of one's oral phonological knowledge. It is concluded that children need to understand the differences between vernacular and standard English because vernaculars can affect the way children score on standard measures of reading. Contains 45 references. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 434 519

The Effects of Task and Language Vernacular on Rhyming in Kindergarten, First, and Second Graders

Roberta E. Dorr, Ph.D.
Trinity College
Washington, D.C.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Roberta Dorr
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Running Head: Effects of Task and Language on Rhyme

Address for Correspondence: **Roberta E. Dorr**
School of Professional Studies
Trinity College
Washington, D.C. 20017

E-mail: dorrr@trinitydc.edu

American Education Research Association
Annual Conference
Montreal, Canada
April 21, 1999

BEST COPY AVAILABLE

FL025996

Introduction

Learning to read and write in standard written English is a highly complex and a very resource consuming process for anyone. Several key theorists note that, if children are to be successful readers, they must be able to automate the processing demands associated with early reading (Adams, 1990; Crowder & Wagner, 1989; Perfetti, 1985). If learners do not have significant prereading communication experiences that help them build prereading skills, learning to read and write is even more resource consuming from a cognitive process perspective. Inner-city children, for example, often begin school without prereading skills. Since these skills, unlike oral language skills, have been neither learned nor automated, these children face the distinct disadvantage of having to learn the processing operations while they are learning to read.

This study was concerned with some of the factors that may affect the amount of processing that beginning readers must expend in order to be successful. It was also concerned with the ultimate effect of those factors on beginning reading performance. Specifically, the researcher showed that the performance of kindergartners, first graders, and second graders on typical phonological awareness tasks varies as a function of two factors that are hypothesized to affect processing difficulty. The two factors are (1) the cognitive demands of the tasks used to measure phonological awareness, and (2) the knowledge representations of one's oral phonological knowledge which is used as the basis for developing phonological awareness.

Given the importance placed on phonological awareness, why do we assume, with such certainty, that phonological awareness is even related to beginning reading? For one, measures of phonological awareness correlate more highly with scores on standardized reading tests than other developmental variables like age (Bradley & Bryant, 1983; Perfetti, Beck, Bell, & Hughes, 1987; Yopp, 1988). Further, the majority of evidence shows that the relationship of phonological awareness to reading success is bidirectional. That is, phonological awareness affects subsequent reading ability and reading ability affects subsequent development of phonological awareness. Wagner and others (1997) state:

> Individual differences in sensitivity to the sound structure of oral language as demonstrated by one's appreciation of rhyme and alliteration influence the development of subsequent individual differences in reading skills. Individual differences in reading skills influence the development of subsequent individual differences in more full-blown awareness, as demonstrated by the ability to segment syllables into their constituent phonemes (p. 469).

Because developing phonological awareness is difficult for most beginning readers, it is important to identify factors that contribute to the ease or difficulty of developing that ability. This research was concerned with two potential contributors: first, the cognitive factors, which look at the demands of the tasks used to measure phonological awareness; and second, the sociocognitive factors, which explore the oral phonological representations that underlie phonological awareness.

Cognitive Factors

In cognitive science, a longstanding distinction exists between (the processes of) recognition and retrieval of information (cf. Anderson & Bower, 1971; Anderson, 1990, 1995). Most recently, Anderson has described recognition as a process in which a number of cues are made available; all cues act as activation sources for searching long-term memory. In retrieval, or recall, according to Anderson, a single cue (or at most a very few cues) serves as the activation source(s) for the search process. The number of available cues makes the search process easier or harder. Not surprisingly, performance on recognition memory tasks is generally superior to performance on recall or production tasks that rely on searching long-term memory.

Studying the developmental sequence(s) in learning to read, Knight and Fischer (1992) distinguished between the tasks of production and recognition in reading-related behaviors. Specifically, they distinguished between reading production and reading recognition, and also between rhyme production and rhyme recognition:

> We used two straightforward tests of reading a word ... looking at the written word and reading it without any help (Reading Production) and looking at the written word and picking a drawing that matched it (Reading Recognition) ... rhyme tasks were used that were parallel to the reading tasks: giving a rhyme for a word after having said it (Rhyme Production) and picking a rhyme for it from several choices (Rhyme Recognition) ... (p. 383).

Knight and Fischer found recognition to be easier or more primitive than production, and therefore earlier developing. Despite differences in developmental patterns in the acquisition of early reading

skills, recognition preceded production in each pattern observed.

Cognitive science has not determined why some types of memory performance in children improve greatly with age while others do not. For example, consider simple recognition memory, which typically does not involve an important strategy. There is little change through the span of childhood (Brown, 1975; Perlmutter, 1980). On the other hand, when required to perform more complex memory tasks, such as retelling a story, children perform better as they get older. Anderson (1990) discusses three possible interrelated reasons. First, as children age, they acquire a greater number of cognitive strategies, as well as more sophisticated ones. Second, children acquire more knowledge, which allows for more effective encoding and elaboration. Third, children monitor their memory and comprehension and this makes them more sensitive to the process of understanding.

Regardless of the exact reason(s), research supports the idea that recognition is less resource-demanding and likely to be more achievable than production (retrieval). Interestingly, in studies of the acquisition of early reading skills, little direct attention has been given to distinguishing between tasks that require recognition and those that require production (see, for instance, Wagner et al., 1997). Logically, because they require different resources, tasks involving recognition might better predict some early reading skills, while production tasks better predict others. This study systematically distinguished between the tasks of recognition and production, and investigated whether these tasks differ in their ability to predict reading test scores. The study also investigated the patterns of performance on rhyme production and rhyme recognition as children get older.

Sociocognitive Factors

Obviously, cognitive factors do not act in isolation to predict a child's reading ability. Sociocognitive factors must also be considered, as parents and educators work to ensure that children learn to read and to apply new knowledge toward more efficient ways of teaching children to read.

Reading is a "secondary" language activity that depends very heavily on primary language that is processed and reflected in speech (Liberman & Shankweiler, 1979). During the past decade, many studies have uncovered associations between early difficulties in learning to read and problems in one or more aspects of spoken language (e.g., language differences) (Mann & Brady,

1988). Purcell-Gates and Dahl (1991) report:

> The effect of entering knowledge on success in beginning literacy instruction for low SES children in an important factor. These children continue to fail to achieve in literacy activities relative to middle-class children, a fact that carries dire social and economic consequences for the children as well as for this society (p. 30).

And Walker-Dalhouse (1993) points out:

> Some educators see these [low socioeconomic] students as lacking the prerequisite language, experiences, and intellectual stimulation needed to easily become members of a literate community. We can identify certain principles that these children have in fact been able to capitalize on (speaking, listening, viewing and thinking); however, we can also look at those principles which because of social environment reasons are lacking in the schema of these children when they come to school. Like all children, these children come to us with a wealth of experience and the ability to use language effectively within the boundaries of their particular culture (p. 24).

One language factor that may increase the processing load of beginning readers concerns the degree to which the phonological representations of the child vary from what is required by the code we call standard English. For instance, Leverett and Diefendorf (1992) looked at the areas of language domain, and they referred to Polloway and Smith's (1983) work when discussing nonstandard speakers. Together, the authors concluded that children with language backgrounds other than English, or whose dialects conflict with the standard school language of classroom instruction and textbooks, may initially have limited listening, reading, and writing skills because of the variation in their language of the home and the language of the school. If one's language of the home serves as the primary basis for learning the code of standard English (i.e., the development of reading) and if there is substantial variation between the two forms of language, then the processing load under such conditions would be increased accordingly.

Linguists have documented some of the variations of spoken English among the minority groups in the United States (cf. Wolfram & Adger, 1993; Smitherman, 1977). For example, Wolfram and Christian (1989) point out:

> Word-final consonant clusters ending in a stop can be reduced when both members of the cluster are either voiced (find, cold) or voiceless (act, test). This [reduction] rule is quite prominent in vernacular Black English and in dialects of English that retain influences from other languages, such as Chicano English and Vietnamese English. It is not particularly obtrusive in most Anglo-based dialects, such as vernacular southern and northern white varieties (p. 132).

According to this reduction rule in these minority vernaculars, find is pronounced as "fine," cold as

"coal," act as "ask," and, test as "tess". The final consonant in the cluster is dropped.

Wolfram and Christian find this reduction rule does not apply to word-final consonant clusters, when one member of the consonant cluster is voiced and the other member is voiceless (e.g., bank, self). Thus, for this class of words, no variation in pronunciation is observed between the minority and Anglo vernaculars.

This research investigated a central question: Does such variation in phonological representations influence the development of phonological awareness? When children are learning to read, the development of phonological awareness is an enormously difficult task, and any factor that adds the least bit of processing burden may handicap the child's progress. The degree to which the pronunciations of words vary reliably in one's language of the home may make it more difficult to acquire and/or discriminate the phonological and orthographic correspondences of standard written English. If what a child hears does not reliably map onto the required written symbols, the development of phonological awareness may suffer (Adams, 1990).

Predictions and Hypotheses

One general principle that guided all of the predictions is that as the processing difficulty increases, performance goes down.

The first purpose of this study was to investigate the contribution of task demands (recognition, production) on rhyming tasks. I predicted that children would perform better on recognition tasks than on production tasks. Therefore the first hypothesis states that because recognition is less resource consuming than production, children will perform better on recognition tasks than on tasks that require production regardless of grade level.

The second purpose was to determine whether young speakers of a vernacular consistently use the consonant cluster reduction rule when asked to rhyme. I predicted that children will do better on rhyming tasks where the reduction rule did not apply. The second hypothesis holds that across all grade levels, children who speak a language vernacular will do worse on phonological tasks when the language vernacular versions are in conflict with the code of standard written English.

The third purpose of the study was to determine whether I could predict the childs' response if the child did not give the expected standard English response. Here, I predicted that the child would select or produced a response that was consistent with their oral language

(vernacular). The third hypothesis states that in the variation condition of the CVCC rhyming tasks when students select or produce responses other than the standard written English response their response of choice will be the one that is consistent with the language vernacular.

The final purpose of the study was to determine if the task demands and use of this vernacular rule are related to beginning reading achievement. I predicted that the rhyming tasks would be the best predictors of future performance on standard measures. The fourth hypothesis explores the degree to which the various tests in this battery are successful in predicting the SAT-9 reading scores of the first and second graders.

Design

This study was proposed in light of what is known about the importance of the development of phonological awareness as it affects early reading ability, the bidirectional relationship between these abilities, and the cognitive and sociocognitive factors that affect the phonological processing ability of young learners. Kindergartners, first graders, and second graders were given individually administered, standard phonological awareness tasks, including rhyming tasks. Of interest are the 4 specifically designed rhyming tasks, the first two tasks used Consonant-Vowel-Consonant (CVC) combinations (words like, cat, hat), one task looked at recognition and the second production. In the case of recognition tasks, pictures rather than orthographic script were used with each picture being named by the examiner. The child needed only to point to the correct picture. For production tasks the child was asked to produce a word (i.e., "Tell me a word that rhymes with ...?"). The last two tasks followed the same format as the CVC except that words were Consonant-Vowel-Consonant-Consonant (CVCC) (e.g., vest, test) this was done in order to test the consonant cluster reduction rule. Half of the items on each task followed the reduction rule that occurs as a function of language vernacular, these items were called the CVCC-Variation condition (chest - mess). For the other half of the CVCC words, the reduction rule does not apply, these words were called, CVCC-No-Variation, because no pronunciation differences are associated with different language vernaculars (belt, melt, net fell).

The first hypothesis stated that because recognition is less resource consuming than production, children will perform better on recognition tasks than on tasks that require production regardless of grade level. To test the first hypothesis, the number of correct responses were used as the dependent measures, and a two-factor analysis of variance was performed with Grade Level

(K, 1, 2) serving as a between-subject factor and Type of Task (recognition, production) acting as a within-subjects factor. As predicted in the fall, the main effect for Task was significant, F (1, 103) = 40.59, $p < .001$. The spring results replicated the fall, F (1, 99) = 16.96, $p < .001$. Additionally, the CVCC Rhyme subtest demonstrated almost the same pattern as the CVC. Note, because the number of items for recognition and production were not equivalent, proportions were used for reporting all CVCC data. In the case of the CVCC fall results reveal, F (2, 103) = 4.39, $p < .05$, and for spring, F (2, 99) = 3.87, $p < .05$. Results of the analyses supported a main effect for task in both the CVC and CVCC rhyme.

The second Hypothesis held that across all grade levels, children who speak a language vernacular will do worse on phonological tasks when the language vernacular versions are in conflict with the code of standard written English. To test this, an analysis was conducted on the CVCC tasks that looked at items with the variation condition as compared to items with the no-variation condition. Rhyme subtests demonstrated a main effect for item type. Of further interest was the Grade Level x Item Type interaction, F (2, 103) = 5.21, $p < .05$, showed that although rhyming performance increased across grade level for both items types, the improvement for no-variation words was significantly greater than for word subject to dialect variation. That is items with no-variation led to better performance than items with variation. Again results for the spring were similar to the fall, F (2, 99) = 5.32, $p < .05$. The one departure was the first grade performance on the no-variation items. In the spring, first graders did not do much differently than kindergartners, whereas in the fall that grade level difference was larger.

The third hypothesis stated that in the variation condition of the CVCC rhyming tasks, when students select or produce responses other than the standard written English response their response of choice will be the one consistent with the language vernacular.

In order to examine the third hypothesis an analysis of the alternate responses was necessary. For the CVCC rhyme recognition task after the the correct rhyme according to the conventions of standard English (e.g., for *test* the correct response is *chest)* two alternative responses for each item type (variation, no-variation) were created. This allowed for an analysis of the responses. One alternative dropped the Next-To-Last consonant in the final consonant cluster (for test , the alternative is pet - the "s" is dropped). The second alternative was the one that drops the last consonant of the cluster (for *test* the alternative is *mess* - the "t" is dropped). This last

alternative obeyed the reduction rule of the vernacular(i.e., test, chest, mess, pet).

Results for the CVCC rhyme recognition yielded a main effect for type of alternative. Of interest was the fall three-way interaction of Grade Level x Item Type x Alternative, F (2, 103) = 5.86, $p < .001$, and for spring, F (2, 99) = 5.49, $p < .001$. The vernacular-consistent alternative was selected more often that any other alternative. This was the condition where the last consonant was dropped in the item where the vernacular rule was in operation.

For the CVCC rhyme production task four alternative responses for each item were created. The first two were the same as those created for the rhyme recognition, the correct, next-to-last, and last; however, because production offered more creative responses two more categories were necessary: First omission, which reflected responses that were totally out of context or nonexistent, and second substitution where a substitution for one of the last two consonants occurred. .

Taken together the production tasks demonstrated the omission of response occurred most frequently. Children had more difficulty with the task of production as compared to the task of recognition. All main effects were significant as were all two-way interaction. In the fall and Item Type x Alternative x Grade Level, F (6, 309) = 2.59, $p < .05$; however, in the spring did not reach significance, F (6, 279) = .587, $p < .741$. As children progressed in grade level, and were able to produce a response the one that occurred most frequently, was the one that dropped the L consonant and contained the variation condition. This is consistent with the main effect found for the CVCC recognition.

Hypothesis 4 explored the degree to which the various tests in this battery are successful in predicting the SAT-9 reading scores of the first and second graders. The fourth hypothesis employed a multiple regression using the 4 reading subtests of Stanford Achievement Tests, 9th Edition (SAT-9) (Total Reading, Word Study Skill, Word Reading and Reading Comprehension) as the criterion variable and the 10 subtests that made up the battery as the predictors. These predictors were subjected to a principle components analysis which clustered these tasks into two blocks; Literacy and Rhyming. The blocks were forced into the model, first Rhyming, then Literacy, then the reverse operation was employed.

The result of the regression analysis on the four SAT-9 reading scores analyses yielded two general conclusions. First, the complete model for each dependent measure was successful in

predicting (multiple r's ranged between .507 and .729). Thus, the assessment battery has promise for use with kindergartners as a proxy for the SAT-9.

Second, regardless of the dependent measures being predicted, the Rhyming factor/block was consistently the better predictor. Even though the dependent measure looked at different aspects of the reading process (i.e., total reading, word study skill, word reading, and reading comprehension), the rhyming block of variables still accounted for more variance. Taken together, the results support the hypothesis that children's scores on the individually administered tasks will correlate positively with their SAT-9 reading scores.

Conclusion

Two factors that appear to affect the amount of processing that beginning readers must expend in order to be successful. First the cognitive demands of the tasks used to measure phonological awareness and Second the knowledge representation of one's oral phonological knowledge. An understanding of the task demands of recognition and production are important consideration when measuring competency. Additionally, if vernacular distinctions (at odds with the standard convention) can be demonstrated to operate in predictable ways under certain conditions then instructional strategies can be developed for teacher use. The accumulation of knowledge about the way vernacular dialect differences impact upon the performance of children on reading tests and subsequently on standardized tests contributes to information processing and reading theory. This study demonstrated evidence that children need to learn to understand the differences between vernacular and standard English because vernaculars can impact the way children score on standard measures of reading.

Implications for Education

Many believe that urban schools are not educating the students they serve. These beliefs, fostered by numerous reports and poor test scores convey that urban students achieve less in school. Poor performance of urban youth is often linked to home and school environments that do not foster educational and economic success. The challenge of educating the urban child continues to confront problems such as poverty, limited English proficiency, family instability, and poor health.

As we are able to identify the source of reading difficulties, we become better able to address the issue through instructional approaches. Shaywitz et al. (1995) support data that

suggests that those children reading at the lowest levels as early as first grade continue to read relatively poorly. This speaks to the need to break the cycle with programs designed for disadvantaged children that can be implemented early in the child's school career. Some specific approaches are described below.

First, in this particular study the focus population was a low SES inner-city African American population that had demonstrated poor performance on meeting standards on national achievements tests. Finding out why performance varied on these different tasks of phonological awareness required an investigation of the cognitive demands placed upon the child. The cognitive demands of the tasks, recognition versus production, affected the performance of the students. Evaluations must acknowledge and codify task demands if results are to be valid and provide children should be provided additional strategies to cope with increasing task demands.

Second language vernacular when it conflicts with the code of standard written English provides interesting challenges. One difference discussed extensively in the literature involves the phonological domain. Research reports that children who exhibit signs of dyslexia or specific problems with reading show deficiencies in sound-analysis skills.
Torgesen and Davis (1996) reported

> ...the sample of children in this study was predominantly black, and many spoke with a heavy southern dialect. A prominent characteristic of this dialect is frequent failure to clearly pronounce the last consonant in words. Thus, many of the children in this sample had a great deal of difficulty acquiring the concept of rhyme (p.18).

Current research includes proposals to educate not only teachers but children about the differences in dialects. Adger (1997) suggests that we explain to children how standard written English and the in home dialect are related. This comparison of the unique language patterns of different cultural groups can only add to ones background knowledge and build additional schemas. This strategy would certainly gain support from a cognitive perspective as an additive component.

Other research has suggested everything from dialect readers to dialect awareness programs to assist struggling readers (Rickford & Rickford, 1995; Wolfram & Adger, 1993). According to Crowder and Wagner (1989) the evidence is weak that adopting materials designed for black English would help. Each suggested fix has its own strengths and weaknesses but that is

beyond the scope of this project.

As researchers have demonstrated, the methods used to instruct young children need to capitalize on their very strengths. Teachers should include the concept of phonemic awareness in their instruction. By integrating this with their existing knowledge, children could be better equipped to apply what they know. Treiman (1984) and Goswami and Bryant (1990) tell us that onsets and rimes are cognitivly economical and much easier for children to manage. Programs that incorporate such techniques could improve early success in reading without the risk of overloading a cognitive system.

Finally, it follows that before children can demonstrate success on standard measures of achievement, they must be able to manipulate and understand the system of graphemes and words. They must acquire an awareness of their oral correspondents: spoken words and phonemes. We also know that poorly developed phonemic awareness distinguishes economically disadvantaged preschoolers from their more advantaged peers (cf. Adams, 1990; Wallach, Wallach, Cozier, & Kaplan, 1977). To change this pattern conscious efforts that demonstrating reading as an all-inclusive process that transcends all kinds of knowledge relationships would help build the schemas and structures necessary for success on a variety of measures.

References

Adams, M. (1990). Beginning to read: Thinking and learning about print. Center for the Study of Reading. The Reading Research and Education Center, University of Illinois at Urbana-Cambridge, MA: MIT Press.

Adger, C. T. (1997). Language policy and public knowledge. [on-line] http://www.cal.org/ebonics/eboped.htm.Washington, DC: Center for Applied Linguistics.

Anderson, J.R. (1990). Cognitive psychology and its implications. (3rd ed.). New York: W.J. Freeman.

Anderson, J.R. (1995). Learning and memory: An integrated approach. Carnegie Mellon University, New York: John Wiley & Son Inc.

Anderson, J.R., & Bower, G.H. (1971). Recognition and retrieval processes in free recall. Psychological Review, 79 (2), 97-123.

Bradley, L., & Bryant, R.E. (1983). Categorizing sounds and learning to read-a causal connection, Nature, 301 (3), 419-421.

Brown, A.L. (1975). The development of memory: Knowing, knowing about knowing, and knowing how to know. In H.W. Reese (Ed.) Advances in child development and behavior, Vol 10. New York: Academic Press.

Crowder, R., & Wagner, R. (1989). The psychology of reading: An introduction. (2nd ed.), New York: Oxford University Press.

Dahl, K.L., & Freppon, P.A. (1995). A comparison of inner city children's interpretations of reading and writing instruction in the early grades in skills based and whole language classrooms. Reading Research Quarterly, 30 (1), 50-74.

Delpit, L (1995). Others people's children: Cultural conflict in the classroom. New York: The New Press.

Goswami, U., & Bryant, P.E. (1990). Psychological skills and learning to read. In U. Goswami and L. Mead's article, Onset and rime awareness and analogies in reading, Reading Research Quarterly, 27, (2) 153-162.

Knight, C.C., & Fischer, K.W. (1992). Learning to read words: Individual differences in developmental sequences. Journal of Applied Developmental Psychology, 13, 377-404.

Labov, W., (1972). Language in the inner city: Studies in the Black English Vernacular, Philadelphia: University of Pennsylvania Press.

Leverett, R.G., & Diefendorf, A.O. (1992).Students with language deficiencies. Teaching Exceptional Children, 24, 30-35.

Liberman, I., Shankweiler, F., Fischer, W., & Carter, B. (1974). Explicit syllable and phoneme segmentation in the young child. Journal of Experimental Child Psychology, 18, 201-12.

Moustafa, M. (1995). Children's productive phonological recoding. Reading Research Quarterly, 30 (3), 464-476.

Mufwene, S.S., Rickford, J.R., Bailey, G., & Baugh, J. (Eds.). (1998). African-American English: Structure, history and use. London: Routledge.

Perfetti, C.A. (1985). Reading ability. New York: Oxford University Press.

Perfetti, C.A., Beck, I., Bell, L.C., & Hughes, C. (1987). Phonemic knowledge and learning to read are reciprocal: A longitudinal study of first grade children. Merrill-Palmer Quarterly,33 (3), 283-318.

Perlmutter, D. (1980). Development of memory in preschool years. In R. Green & T.D.Yawkey, (Eds.). Early and middle childhood: Growth, abuse, and delinquency and its effects on individual, family, and community. Westport, CT: Technomic.

Polloway, E. & Smith, J., Jr. (1982). Teaching language skills to exceptional learners. Denver: Love.

Purcell-Gates, V., Dahl, K.L. (1991). Low SES children's success and failure at early literacy learning in skill-based classrooms. Journal of Reading Behavior, 23 (11), 133 -143.

Rickford, J. R., & Rickford, A. E. (1995). Dialect readers revisited. Linguistics and Education; An International Research Journal ,7 (2), 107-127.

Sealey, A. (1996). Learning about language: Issues for primary teachers. Philadelphia: Open University Press.

Smitherman, G.N. (1977). "Talkin and testifyin": The language of Black America. Boston, MA: Houghton Mifflin.

Smitherman, G.N. (1998). Ebonics and TESOL "Dat teacher be hollin as us"-What is Ebonics? TESOL Quarterly, 32 (1), 139-143.

Tanenhaus, M.K., Flanigan, H.P., & Seidenberg, M.S. (1980). Orthographic and phonological activation in auditory and visual word recognition. Memory and Cognition, 8 (6), 512-526.

Torgesen, J.K., & Davis, C. (1996). Individual difference variables that predict response to training in phonological awareness. Journal of Experimental Child Psychology, 63, 1-21.

Treiman, R. (1985). Onsets and rimes as units of spoken syllables: Evidence form children. Journal of Experimental Child Psychology, 39, 161-181.

Wagner, R.K., Torgesen, J.K., Laughon, P., Simmons, K., & Rashotte, C.A. (1993). Development of young readers' phonological processing abilities. Journal of Educational Psychology, 85 (19), 83-103.

Wagner, R.K., Torgesen, J.K., & Rashotte, C.A. (1994). Development of reading-related phonological processing abilities: New evidence of bidirectional causality from a latent variable longitudinal study. Developmental Psychology, 30 (1), 73-87.

Wagner, R.K., Torgesen, J.K., & Rashotte, C.A. (1997). Test of phonological awareness. (1997 Norming ed.). Department of Psychology, FL: Florida State University.

Wagner, R.K., Torgesen, J.K., Rashotte, C.A., Hecht, S.A., Barker, T.A., Burgess, S.R., Donahue, J., & Garon, T. (1997). Changing relations between phonological processing abilities and word-level reading as children develop form beginning to skilled readers: A 5-year longitudinal study. Developmental Psychology, 33 (3), 468-479.

Walker-Dalhouse, D. (1993). Beginning reading and the African American child at risk. Young Children, 49 (1), 24-28.

Walker, C.H., & Yekovich, F.R. (1997). Creating technology-rich authentic literacy environments (TRALEs) within an urban early childhood setting. Unpublished report. The Catholic University of America, Washington, D.C

Wallach, L., Wallach, M.A., Dozier, M.G., & Kaplan, N.E. (1977). Poor children learning to read do not have trouble with auditory discrimination but do have trouble with phoneme recognition. Journal of Educational Psychology, 69, 36-39.

Washington, J. A., & Craig, H. K. (1994). Dialectal forms during discourse of poor, urban, African American preschoolers. Journal of Speech and Hearing Research, 37, 816- 824.

Wolfram, W. (1991). Dialects and American English. Center of Applied Linguistics, University of the District of Columbia, Englewood Cliffs, NJ: Prentice Hall Regents.

Wolfram, W. (1997). Ebonics and Linguistic Science: Clarifying the issues. [On-line] Available: http://www.cal.org/ebonics/wolfram.htm. North Carolina State University: National Science Foundation.

Wolfram, W., & Adger, C. (1993). Handbook on language differences and speech and language pathology: Baltimore City Public Schools. Washington, D. C: Center of Applied Linguistics.

Wolfram, W., & Christian, D. (1989). Dialects and education: Issues and answers. Center for Applied Linguistics. Englewood Cliffs, NJ: Prentice Hall Regents.

Woodcock, R.W., & Johnson, M.D. (1989). Woodcock-Johnson Psycho-Educational Battery-Revised, Allen, TX: DLM Teaching Resources.

Yekovich, F.R., & Walker, C.H. (1986). Retrieval of scripted concepts. Journal of Memory and Language, 25, 627-744.

Yekovich, F.R., Walker C.H., & Nagy-Rado, A., (1998). Building TRALEs to literacy for young urban learners. Unpublished manuscript. The Catholic University of America, Washington, DC.

Yopp, H.K.(1988). The validity and reliability of phonemic awareness tests. Reading Research Quarterly, 23, Spring, 159-177.